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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,566	07/11/2001	Keita Ito	010698	4812

23850 7590 08/14/2002

ARMSTRONG, WESTERMAN & HATTORI, LLP
1725 K STREET, NW.
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

LUGO, CARLOS

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/901,566

Applicant(s)

ITO ET AL.

Examiner

Carlos Lugo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- Element 44 (Page 13 Line 1) is not illustrated in the drawings.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to because of the following informalities:

- Page 10 Line 5, add --ball-- before "bearing".
- Page 10 Lines 24 and 26, change "75" as --58--.
- Page 11 Line 3, change "75" as --58--.
- Page 15 Line 14, change "48" as --49--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. **Claims 1 and 2 are rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "joint surfaces of said cylinder block and said crankcase" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE Pat No 3,841,203 to Obermayer et al (Obermayer) in view of US Pat No 3,202,463 to Fatt.

Regarding claim 1, Obermayer discloses a seal structure comprising a crankcase (1) having a crank chamber. The crankcase is coupled to a lower face of a cylindrical block (4). The crankcase includes first and second case halve (1' and 1'') coupled to each other in a plane perpendicular to the joint surfaces between the crankcase and the cylindrical block.

One of the case halve includes a U shaped groove (5) that extends along a peripheral edge of the chamber. Enlarged recesses are provided at opposite ends of the groove. A bar shaped seal member (6) is mounted in the groove.

However, Obermayer fails to disclose that at the opposing ends of the bar shaped seal has an enlarged end to be filled on the enlarged recess. Obermayer

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disclose that a seal ring (10) is attached to the opposite ends of the bar seal member and placed on the enlarged recess.

Also, Obermayer fails to disclose the use of a gasket between the joint surfaces of the block and the crankcase that comes in close contact with the enlarged end portions of the bar seal member.

Fatt teaches a seal structure for an engine body comprising a seal member (28) having enlarged opposite ends (30). Between the enlarged end portion of the seal and the joint surfaces is placed a gasket (32).

Applicant is reminded that a one-piece construction, in place of separate elements fastened together, is a design consideration within the skill of the art. In re Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a seal arrangement, as taught by Fatt, into a seal structure as described by Obermayer, in order to create a better sealing between the crankcase and the cylindrical block.


Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents cited further show the state of the art with respect to seal structures in an engine body.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo. The examiner phone number is (703)-

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305-9747. The fax number for correspondence before a final action is (703)-872-9326 and the fax number for correspondence after final action is (703)-872-9327. The email direction of the examiner is carlos.lugo@uspto.gov. The examiner can normally be reached on Monday to Friday from 9:30am to 6:30pm (EST). If the examiner is not available, please leave a message, including the application number and the examiner will answer the message as soon as possible.

July 23, 2002


ROBERT J. SANDY
PRIMARY EXAMINER